

What is claimed is:

1. An optical disk drive comprising:
a housing including a base portion;
an optical disk having information on at least one side;
said optical disk rotatably mounted on a first shaft;
5 an actuator assembly having a first portion and a second portion and being pivotally mounted to a second shaft for positioning the second end relative to the surface of the disk, said second portion comprising a plurality of planar elements;
an optical pick up unit disposed on said second portion of said actuator, said optical pick up unit acting to focus a light beam on said optical disk.
2. The optical disk drive of Claim 1, wherein said second portion comprises at least three planar elements.
3. The optical disk drive of Claim 2, wherein a first of said planar elements comprises a flexible member.
4. The optical disk drive of Claim 3, wherein second and third planar elements are disposed on opposite sides of said flexible member.
5. The optical disk drive of Claim 4, wherein said first planar element further comprises a spacer member.
6. The optical disk drive of Claim 3, wherein said second and third planar elements comprise a plurality of layers.
7. The optical disk drive of Claim 6, wherein said second and third planar elements comprise eight layers each.

8. The optical disk drive of Claim 6, wherein said layers are fiber composite material.

9. The optical disk drive of Claim 8, wherein the fibers are selected from the group comprising carbon, magnesium, boron, beryllium, kevlar, glass and ceramic.

10. The optical disk drive of Claim 8, wherein the orientation of the fibers varies between adjacent layers.

11. The optical disk drive of Claim 8, wherein the number of layers in each of said planar elements is eight and the orientation of the fibers in the outermost layer of said second and third planar elements is zero degrees relative to the longitudinal axis of said actuator assembly, the orientation of the fibers in the second outermost layer for each of the second and third planar elements is zero degrees relative to the longitudinal axis of said actuator assembly, the orientation of the fibers in the third outermost layer for each of the second and third planar elements is plus 29 degrees relative to the longitudinal axis of said actuator assembly, the orientation of the fibers in the fourth outermost layer for each of the second and third planar elements is minus 29 degrees relative to the longitudinal axis of said actuator assembly, the orientation of the fibers in the fifth outermost layer for each of the second and third planar elements is minus 29 degrees relative to the longitudinal axis of said laminated actuator assembly, the orientation of the fibers in the sixth outermost layer for each of the second and third planar elements is plus 29 degrees relative to the longitudinal axis of said laminated actuator assembly, the orientation of the fibers in the seventh outermost layer for each of the second and third planar elements is zero degrees relative to the longitudinal axis of said laminated actuator assembly, and the orientation of the fibers

in the eighth outermost layer for each of the second and third planar elements is zero degrees relative to the longitudinal axis of said laminated actuator assembly.

12. The optical disk drive of claim 2 wherein said flexible member comprises a first and second portion joined by a bridge portion.

13. The optical disk drive of claim 12, wherein said bridge portion bends to allow said second portion to pivot relative to said first portion.

14. In a disk drive having a housing, a spindle mounted within the housing, and at least one disk rotatably mounted relative to the spindle, the improvement comprising: an actuator assembly comprising a plurality of planar elements and a flexible member, said planar elements comprising front and rear portions with said front portions pivotable relative to said rear portions to allow the distal end of said front portions to move toward and away from the surface of the disk.

15. The disk drive of claim 14, wherein said planar elements comprise a plurality of layers of composite fiber material.

16. The disk drive of claim 15, wherein said composite fiber material is carbon.

17. The disk drive of claim 15, wherein the orientation of fibers among said layers varies.

18. The disk drive of claim 14, wherein said flexible member is disposed between two planar elements.

19. The disk drive of claim 14, wherein said flexible portion comprises a front portion and a rear portion joined by a bridge member.

20. The disk drive of claim 15, wherein each planar element comprises beam portions.

21. The disk drive of claim 20, wherein said fibers within at least one layer of each planar element are oriented parallel to said beam portion.